

UNITED STATES DISTRICT COURT
DISTRICT OF MASSACHUSETTS

CIVIL ACTION NO. 13-10150-RGS

JOSEPH T. KING, Administrator
for the Estate of GERTRUDE KING

v.

PIERCE MANUFACTURING, INC.

MEMORANDUM AND ORDER ON DEFENDANT'S
MOTION FOR SUMMARY JUDGMENT

September 2, 2014

STEARNS, D.J.

On July 26, 2010, while walking on Western Avenue in Cambridge, Massachusetts, Gertrude King was struck by the nozzle of a hose that had come loose from a passing fire truck. She died two days later from her injuries. The administrator of her estate, Joseph King, brought this lawsuit against Pierce Manufacturing, Inc. (Pierce), the manufacturer of the fire truck, alleging that the truck was defective because it was not equipped with a net restraint that could have prevented the escape of the hose from the bed of the truck. The Complaint is framed on Counts of breach of implied warranty (Count I), negligent design (Count II), wrongful death (Count III), and a prayer for punitive damages (Count IV).

Pierce moves for summary judgment, arguing that without the aid of expert testimony (King has offered none), a jury would be unable to assess whether the hose-storage design of the truck failed to meet reasonable safety standards in 2002 (when the truck was built), or whether the accident more likely resulted from the mishandling of the hose by the firefighters who manned the truck. Because the court agrees with Pierce, it will be granted summary judgment.

BACKGROUND

Pierce, a wholly-owned subsidiary of the Oshkosh Corporation, (Oshkosh) builds trucks for fire departments throughout the United States. Pierce manufactures between 1,500 and 2,000 fire trucks yearly, each of which is a custom order. After a fire department makes its choices from among the “hundreds of thousands of features” that Pierce offers (Pierce also accommodates customers’ unique requests) and agrees to the price, Pierce assembles the truck. Def’s Statement of Facts (SOF) ¶ 9. It is left to the fire department to determine the length and width of the hose storage area, the hose capacity, the bed covers, the hose dividers and their shape, and its preferred material of the hose. The average life of a Pierce-built fire truck is thirty years.

In 2002, Pierce built the truck (Engine 2) for CFD that is at issue in this

case for an ultimate price of \$269,957. The CFD's specifications for Engine 2 included two crosslay hose beds with 1.50" outlets, one crosslay hose bed with a 2.5" outlet, with a crosslay cover installed over each of the hose beds. The crosslay cover is intended to secure the hoses in the beds and protect them from weather. Pierce offered redundant hose restraints as an accessory in 2002. However, the CFD did not order a hose restraint for Engine 2 (or any other truck). Nor did it purchase the hose for Engine 2 from Pierce.

Roger Lackore is the Director of Product Safety at Oshkosh. Prior to his employment at Oshkosh, Lackore spent 18 years as a mechanical engineer "involved in fire apparatus design and safety" at Pierce. Lackore Dep. at 5. Lackore has been a member of the National Fire Protection Association (NFPA) Standard 1901 Committee since the mid-1990s, serving for much of the time as Pierce's alternate or full voting member.¹

In 2002, when Engine 2 was manufactured by Pierce for the CFD, NFPA Standard 1901 neither required nor recommended that fire trucks be equipped with redundant hose restraints. However, in May of 2005, Lackore learned

¹ According to NFPA, "[t]his standard defines the requirements for new automotive fire apparatus and trailers designed to be used under emergency conditions to transport personnel and equipment and to support the suppression of fires and mitigation of other hazardous situations." <http://www.nfpa.org/codes-and-standards/document-information-pages?mode=code&code=1901> (last visited Sept. 2, 2014).

of an accident involving the Coraopolis (Pennsylvania) Fire Department in which a young girl had been killed by a dislodged fire truck hose. Lackore proposed that NFPA Standard 1901 be amended to recommend hose restraints. The gist of Lackore's proposal emerged from the Standard 1901 Committee as a Tentative Interim Amendment (TIA). The TIA was approved by the NFPA's governing board on November 15, 2005, and in its final form, required that all newly manufactured fire trucks be equipped with some type of hose restraint. The TIA did not require any recalls or retrofits of older fire trucks. Pierce did not notify the CFD (or any other of its pre-TIA customers) of the modification of Standard 1901.

Ariel Rodriguez was the senior firefighter and acting lieutenant assigned to Engine 2 on the day of the accident. He recalls responding to a call regarding a water emergency on Franklin Street in Cambridge between 10 a.m. and 11 a.m. on January 26, 2010. As it left the firehouse, Engine 2 made a left turn onto Massachusetts Avenue, traveled approximately 1,000 feet, and then made a second left on Western Avenue. While in the midst of the turn, a hose came loose from the left side of the truck (the hose is 1³/₄" in diameter and 200' long). Guenther Aff., Ex. 2 at 5. The loose hose became entangled with the wheels of a following vehicle. *Id.* It snapped and whipsawed, with the brass hose nozzle striking Gertrude King. Aware that something was

amiss, the driver of Engine 2 brought it to a stop at the corner of Western Avenue and Green Street. Rodriguez stepped off the truck and saw the hose spewed out behind. He asked two of his firefighters to reel the hose back into the truck. A passing UPS driver told Rodriguez that a pedestrian had been injured at the Western Avenue intersection. When Rodriguez reached the scene, he saw Gertrude King lying on the ground, bleeding profusely. She was taken to a local hospital where she underwent emergency surgery for blunt trauma to her lower extremities, but she died two days later.

After the death of Gertrude King, Pierce filled an order by the CFD for nylon netting restraints to be installed on its fire trucks. The cost to equip each truck was approximately \$524. Pierce has been in the business of building fire trucks since 1914. Gertrude King's death was the first accident of its kind encountered by Pierce with one of its trucks. After this Complaint was filed, Pierce retained Dr. Dennis Guenther, a professor of Mechanical Engineering at Ohio State University and a project engineer at SEA, Ltd., a forensic engineering firm in Columbus, Ohio, to inspect Engine 2. After examining the truck in October of 2013, Guenther concluded that the truck "was not defective or unreasonably dangerous and . . . [that] Pierce [had] followed a reasonable and good standard of care in [its] manufacture and design [of the truck]." Dkt.#22 - Ex. L ¶¶ b-c. Dr. Guenther further opined

that the hose had been dislodged from off the left side of Engine 2 “against the normal direction of the centripetal acceleration of the truck making the left turn.” Dkt. #22 - Ex. L at 5. He ultimately concluded that “the cause of the accident was an improperly stowed hose in the cross lay hose compartments before the fire truck left the Cambridge Fire Department.” *Id.*

DISCUSSION

“Summary judgment is appropriate when there is no genuine issue as to any material fact and the moving party is entitled to judgment as a matter of law based on the pleadings, depositions, answers to interrogatories, admissions on file, and any affidavits.” *Thompson v. Coca-Cola Co.*, 522 F.3d 168, 175 (1st Cir. 2008), citing Fed. R. Civ. P. 56(c). “A dispute is genuine if the evidence about the fact is such that a reasonable jury could resolve the point in the favor of the non-moving party.” *Id.*, quoting *Sánchez v. Alvarado*, 101 F.3d 223, 227 (1st Cir. 1996) (internal quotation marks omitted). “A fact is material if it has the potential of determining the outcome of the litigation.” *Maymí v. P.R. Ports Auth.*, 515 F.3d 20, 25 (1st Cir. 2008). To defeat a motion for summary judgment, evidence offered by the non-movant “must be significantly probative of specific facts.” *Pérez v. Volvo Car Corp.*, 247 F.3d 303, 317 (1st Cir. 2001), citing *Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249 (1986).

Implied warranty/negligent design²

To establish a breach of the implied warranty of merchantability under Mass. Gen. Laws ch. 106, § 2-314, a plaintiff bears the burden of proving “a defect in the product or an unreasonably dangerous condition which existed at the time the product left the [manufacturer’s] control.” *Enrich v. Windmere Corp.*, 416 Mass. 83, 89 (1993), citing *Colter v. Barber-Greene Co.*, 403 Mass. 50, 62 (1988). The focus, in other words, is on the conduct of the manufacturer. Warranty liability – a form of strict liability – stands on a different footing. Its focus is on the integrity of the product itself and whether it is unreasonably dangerous regardless of any negligence on the part of the manufacturer. *Id.* at 61-62; *Correia v. Firestone Tire & Rubber Co.*, 388 Mass. 342, 355 (1983). “A defendant in a products liability case in the Commonwealth may be found to have breached its warranty of merchantability without having been negligent, but the reverse is not true. A defendant cannot be found to have been negligent without having breached

² Pierce argues that King has failed to address its arguments for brevis disposition of his gross negligence, manufacturing defect, and failure to warn claims. This is not the case with the alleged manufacturing defect – King identifies the absence of netting to secure the fire hose as the defect he has in mind, but at oral argument, his counsel conceded the lack of evidence to support gross negligence. There is no failure to warn claim in the Complaint.

the warranty of merchantability. *Hayes v. Ariens Co.*, 391 Mass. 407, 410 (1984), abrogated on other grounds by *Vassallo v. Baxter Healthcare Corp.*, 428 Mass. 1 (1998).

Negligent design claims, as with all claims of negligence, require a plaintiff to prove that the defendant breached a legally cognizable duty of care and that the breach caused the plaintiff actual harm. *Cigna Ins. Co. v. Oy Saunatec, Ltd.*, 241 F.3d 1, 15 (1st Cir. 2001). Manufacturers have a duty to design their products with an eye to eliminating the foreseeable dangers the products may pose to consumers. *Simmons v. Monarch Mach. Tool Co.*, 413 Mass. 205, 211 (1992). In exercising this duty, manufacturers are held to the standard of “an ordinary reasonably prudent designer in like circumstances.” *Cigna Ins. Co.*, 241 F.3d at 15, quoting *Fahey v. Rockwell Graphics Sys., Inc.*, 20 Mass. App. Ct. 642, 647 (1985).

Dr. Guenther, Pierce’s expert, has given his opinion (there is no suggestion by plaintiff that he is unqualified to do so) that Engine 2 was not defectively designed, and that the cause of Gertrude King’s accident was the improper storage of the hose in the cross lay storage compartment. King has offered no rebuttal expert claiming otherwise. Rather, he argues that

common sense is all that is required to determine whether the fire truck should have had hose restraints. Just because the defendant hired an expert to blame the fire fighters for improperly storing

the fire hose, does not mean the jury needs such testimony to understand this case. The simple fact is that Gertrude King would not have been killed if the fire truck in question was equipped with hose restraints. The defendant, not the City of Cambridge, should have been responsible for equipping the fire truck with hose restraints.

Pl. Opp'n Mem. at 6-7. Pierce, citing *Esturban v. Mass. Bay Transp. Auth.*, 68 Mass. App. Ct. 911 (2007), argues that the lack of expert testimony is fatal to King's negligent design and breach of implied warranty claims.³ Pierce's point is that an "average juror" in this case would have to "make rational decisions" about "fire truck design, the history and applicability of fire apparatus design standards, appropriate accessories, risk and utility analysis, the relative safety of available alternative designs, and accident causation," and that without the aid of expert testimony, the jurors' determinations would be "based on mere speculation and conjecture." Def. Reply Mem. at 4.

If the cause of an accident is "not susceptible of determination by the

³ In *Esturban*, plaintiff argued that jurors, using their common knowledge and experience, were capable of understanding the inherent danger of a narrow escalator and could reasonably infer, without expert assistance, that such an unreasonably dangerous design was the proximate cause of the plaintiff's injuries. The Appeals Court held, however, that "an escalator is a complex, technical piece of machinery, whose design and operational requirements are not straightforward" and therefore any determination as to its safe operation is beyond the scope of an average person's knowledge. *Id.* at 911-912. The Court found that, without the aid of someone versed in the field, jurors would be left "to speculate" about whether alternatively engineered designs might have prevented the accident. *Id.* at 912.

jury’s ‘general knowledge of practical affairs,’” when alleging both negligent design and warranty liability claims, a plaintiff is required to come forward with competent expert testimony that a defect in the product, present at the time it was manufactured and sold, caused [her] injuries. *Enrich*, 416 Mass. at 87, 89 (requiring expert testimony to show a design defect in an electrical fan even where the fan was the known source of the fire), quoting *Toppin v. Buzzards Bay Gas Co.*, 348 Mass. 397, 401 (1965). “Bas[ing] a causation finding on speculation or conjecture . . . is inappropriate under Massachusetts law.” *Santiago v. Sherwin Williams Co.*, 3 F.3d 546, 552 (1st Cir. 1993). “Where there is no evidence from which the factfinder, without speculating, can find causation, however, the case is appropriately kept from the jury.” *Id.* “[I]n a products liability case of any sophistication, a plaintiff’s failure to support her claims of a design defect with expert testimony is almost always fatal.” *Haughton v. Hill Labs., Inc.*, 2007 WL 2484889, at *3 (D. Mass. Aug. 30, 2007).⁴

⁴ There are cases, mostly of a *res ipsa* nature, in which a plaintiff has been permitted to go forward on a negligence claim without the support of an expert. *Cf. LeBlanc v. Logan Hilton Joint Venture*, 463 Mass. 316, 329 (2012) (but only in “exceptional cases”). In *Smith v. Ariens*, for example, the Supreme Judicial Court held that a jury could reasonably conclude without the aid of an expert that sharp, unshielded, metal protrusions on the handlebar of a snowmobile constituted a design defect, and, because “[i]t [was] foreseeable that snowmobiles, like automobiles, will be involved in collisions with other

Apart from the absence of expert evidence to rebut Dr. Guenther's opinion that Engine 2 as manufactured was neither defectively designed nor unreasonably dangerous, King's "common sense" argument also founders on the issues of foreseeability and intervening cause. *See McGuiggan v. New England Tel. & Tel. Co.*, 398 Mass. 152, 154-155 (1986) (foreseeability is the cornerstone of a defendant's liability); *see also Young v. Atl. Richfield Co.*, 400 Mass. 837, 842 (1987) (defendant gas station could not have reasonably foreseen that the failure to post an "attendant will pump gas" would lead to the death of a boy hit by a negligent driver after he alit from his mother's automobile to fill the tank); *Ted's Master Serv., Inc. v. Farina Bros. Co.*, 343 Mass. 307, 309-310 (1961) (defendant had no reason to anticipate that the vibrations from his pile driver would cause damage in homes located 60-70' away). It will be recalled that, in 2002, when Pierce manufactured Engine 2, the company had never experienced an accident with hoses similar to the one

objects," it was equally foreseeable that the plaintiff's injuries would be compounded if her head came into contact with the protrusions. *Smith v. Ariens Co.*, 375 Mass. 620, 625 (1978). Similarly, in *doCanto v. Amekek, Inc.*, 367 Mass. 776 (1975), expert testimony was not deemed necessary to establish that a design defect in an industrial ironing machine caused the plaintiff's hand to be sucked into the machine. *See id.* at 782. *Cf. Petchel v. Collins*, 59 Mass. App. Ct. 517, 522-523 (2003) (matters of common knowledge and understanding do not require the opinion of an expert, such as the fact that propane gas is an explosive and flammable substance).

that led to Gertrude King's death. NFPA Standard 1901 did not in 2002 require that hose restraints be placed on fire trucks, or even recommend them.⁵ After the adoption of the restraint recommendation contained in the TIA, the NFPA did not require truck manufacturers to recall eliciting models or give notice to their owners of the change in the Standard. Nor is there any evidence that the CFD, if given such a notice, would have in fact purchased hose restraints for its trucks. Even more telling, King has no evidence to rebut Dr. Guenther's opinion that the cross lay hose compartments of the truck provided adequate safeguards and that the cause of the hose coming loose was improper storage by the fire crew.

ORDER

For the foregoing reasons, Pierce's motion for summary judgment is ALLOWED. The Clerk will enter judgment for Pierce and close the case.

⁵ While meeting an industry standard serves a "useful purpose" in evaluating a manufacturer's conduct, it does not extinguish a common-law claim of design defect altogether. *See Wilson v. Bradlees of New England, Inc.*, 96 F.3d 552, 557 (1st Cir. 1996); *see also Back v. Wickes Corp.*, 375 Mass. 633, 643 (1978) ("Conformity to standard practice is not dispositive, of course, and counsel may argue that industry standards can and should be more stringent."). *Compare Wiska v. St. Stanislaus Social Club, Inc.*, 7 Mass. App. Ct. 813, 821 (1979) (where expert testified that a windshield conformed to all safety standards existing at the time of manufacture, in the absence of expert evidence to the contrary, the "jury could [not] find of their own lay knowledge that there existed a design defect in the 1964 Pontiac windshield exposing users to an unreasonable risk of injury.").

SO ORDERED.

/s/ Richard G. Stearns

UNITED STATES DISTRICT JUDGE